UNITED STATES PATENT AND TRADEMARK OFFICE

〇

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,897	03/07/2005	Junya Kaku	050138	7840

23850   7590   08/22/2007
KRATZ, QUINTOS & HANSON, LLP
1420 K Street, N.W.
Suite 400
WASHINGTON, DC 20005

EXAMINER
HSU, AMY R

ART UNIT	PAPER NUMBER
2622	

MAIL DATE	DELIVERY MODE
08/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/526,897	KAKU, JUNYA
	Examiner	Art Unit	
	Amy Hsu	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 March 2005</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-8</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-8</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>07 March 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All   b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>3/7/2005</u>.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1- 5, 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Katta et al. (US 6115421) in view of Taniguchi (US 6222841).

        Regarding Claim 1, Katta teaches a data processing apparatus for processing

data from a moving picture, or a plurality of screens of still image data, (*Col 4 Lines 18-

20 and Col 6 Lines 32-33 teaches the data processed by the apparatus of Katta's

invention conforms to MPEG2 standard, which includes audio data)*, comprising: a

calculating means for calculating an error between a virtual processing amount and a

real processing amount of said audio data at a predetermined cycle (*Col 4 Lines 46-

53)*. Katta teaches the calculated error between virtual and real processing amount (*or

target and actual processing amount in Col 4 Lines 46-48)* relates to the number of

frames as shown in the equation in Col 7 Line 10. Katta teaches the target number, or

the virtual processing amount, should be adjusted based on the error (*as disclosed in

the abstract)*, rather than adjusting the number of frames. Katta fails to teach the

apparatus adjusts the number of frames based on the error, but adjusts another

parameter in the related equation.

Taniguchi also teaches an apparatus which processes audio and video data (*Col 1 Lines 5-7*) and teaches that it is well known and conventional for bit rate reduction method to use a feedback control to adjust coding parameters such as the number of frames to control bit rate (*Col 1 Lines 31-35*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Katta with that of Taniguchi because changing the number of frames according to the calculated error will allow the target and actual processing amount to match up, and will therefore optimize the system if the actual processing amount is on target with the virtual processing amount and will allow for higher synchronization between audio and video data.

Regarding Claim 2, Katta teaches a data processing apparatus according to claim 1, Katta teaches in Fig. 6a accumulating the real processing amount (*Step S2*) every period, and calculates a difference between this accumulated value and a virtual or target value in Step S3. Katta fails to teach a counting means for counting the number of screens of the processed still image data, and therefore fails to teach the virtual target is based on the result of the counting means, which is the number of screens counted.

Taniguchi teaches a counting means for counting the number of screens in Fig. 23. Taniguchi also teaches the number of frames can be adjusted to change the bit rate, or amount processed (*Col 1 Line 31-36*).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to combine the teaching of Katta with that of Taniguchi. Katta's invention

changes the target processing amount, while Taniguchi teaches changing the number

of screens to compensate so modifying Katta in view of Taniguchi would involve

counting and changing the number of frames according to the error between real and

virtual processing amount. This modification would allow the target and actual

processing amount to match up, and will therefore optimize the system if the actual

processing amount is on target with the virtual processing amount and will allow for

higher synchronization between audio and video data.

Regarding Claim 3, Katta teaches a data processing apparatus according to

claim 1 or 2, wherein said adjusting means includes a comparing means for comparing

said error with the virtual processing amount of the audio data corresponding to N

(integer) screens (*Fig. 6a shows a comparison is made between an error and a target*

processing amount in order to calculate a new value), and an adjustment executing

means for executing an adjustment on the basis of a comparison result of said

comparing means (*a control unit adjusts a target number on the basis of the error as*

disclosed in the abstract, see also Col 7 Lines 6-28).

Regarding Claim 4, Katta teaches a data processing apparatus according to

claim 3, and adjusts the target value, not the number of screens. Taniguchi teaches

adjusting the number of screens (*Col 1 Lines 31-36*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Katta with that of Taniguchi in order to adjust for the error between the virtual and real processing amount (*target and actual processing amount*) by compensating the number of screens. This would include increasing the number of screens when the error is shortage and decreasing the number of screens when the error is of surplus. This would have been obvious because the error between the real and virtual processing amounts is the difference between the two and adjusting the number of frames can decrease the difference making the actual closer to the virtual, which will results in higher synchronization.

Regarding Claim 5, Katta teaches a data processing apparatus according to claim 3, Katta teaches an apparatus which adjusts the target processing amount on the basis of the comparison between the virtual and real processing amount (*as addressed with Claim 1*) but fails to teach the limitations of Claim 5. Taniguchi teaches a memory for temporarily storing said plurality of screens of still image data (*Fig. 2 reference number 18*); and a reading means for reading the still image data stored in said memory in an order complying with processing order information (*Col 8 Lines 25-27 teach the data is read out of the memory in reference to the bit rate, or processing order*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Katta with that of Taniguchi to process the image data by reading it out of a memory in an order such that processing can occur in a way

to execute adjustments based on the calculated error or comparison in order to

achieve better synchronization.

Regarding Claim 7, Katta teaches a data processing apparatus according to

claim 1 or 2, wherein said virtual processing amount indicates a numerical value that is

approximate to said real processing amount (*Col 4 Lines 35-38 teach that the virtual

processing amount is a target quantity of generated bits, which is a numerical value,

and it is also taught that the target quantity is controlled to not change abruptly,

causing it to vary from the real processing amount*). MPEG encoders are realized by

software and therefore the processing amounts taught by Katta are suitable for

calculation by software. Fig. 11B also shows the actual number and target number do

not vary by far.

Regarding Claim 8, Katta in view of Taniguchi teach a moving picture encoding

apparatus (*Katta Col 5 Lines 46-47*) but fails to teach the apparatus is a video camera.

It would have been obvious to one of ordinary skill in the art to realize the data

processing capability of the apparatus taught by Katta in view of Taniguchi can be

applied to a video camera because applying the capability taught by Katta in view of

Taniguchi in a video camera would yield predicted results.

3.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katta et

al. (US 6115421) in view of Taniguchi (US 6222841), further in view of Maruyama et al

(US 6891539).

        Regarding Claim 6, Katta in view of Taniguchi teach a data processing apparatus

according to claim 3, where the apparatus taught is capable of adjusting based on

results of comparing the real and virtual processing amounts, but fails to teach the

limitations of Claim 6.

        Maruyama teaches in Fig. 2 two recording mediums, reference number 18a and

18b. The first recording means stores picture data and picture processing information

as indicated by the arrow from 18a. The second recording means includes the 2nd

storage unit involving storage of template data, as indicated by the arrow from 18b, see

also Fig. 22, which represents the template which stores the index information.

        It would have been obvious to one of ordinary skill in the art at the time of the

invention to combine the teaching of Katta in view of Taniguchi with that of Maruyama

to apply the adjusting based on calculated result in the same way as it is applied in

Claim 1 by interpolation, or adjusting the number of frames as addressed in claim 1, to

the index information, which is associated with the original image information. This

would enhance the organization and file handling of the system.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure including Kinjo (US 7145597), Hirai (US 6115341), Wu (US

6963608), Wu et al. (US 6160847), Peak (US 5847766), and Okada (US 6643402).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Amy Hsu whose telephone number is 571-270-3012.

The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lin Ye can be reached on 571-272-7372. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amy Hsu
Examiner
Art Unit 2622

ARH 8/17/07

LIN YE
SUPERVISORY PATENT EXAMINER